

## Contents Volume 28

### Special Issue: Robotics Applications at FLINS'98

Guest Editors: Da Ruan, Ariën J. van der Wal

Preface	1
<i>J. De Geeter, M. Decréton and E. Colon</i> The challenges of telerobotics in a nuclear environment	5
<i>O. Castillo and P. Melin</i> Automated mathematical modelling, simulation and behaviour identification of robotic dynamic systems using a new fuzzy–fractal–genetic approach	19
<i>H.W. Park, H.S. Yang, Y.P. Park and S.H. Kim</i> Position and vibration control of a flexible robot manipulator using hybrid controller	31
<i>S. Baek, D.-S. Park, J. Cho and Y.-B. Lee</i> A robot endeffector tracking system based on feedforward neural networks	43
<i>C. Zhou and D. Ruan</i> Integration of linguistic and numerical information for biped control	53
<i>J. Zhang, A. Knoll and V. Schwert</i> Situating neuro-fuzzy control for vision-based robot localisation	71
<i>W.-K. Song, H. Lee and Z. Bien</i> KARES: Intelligent wheelchair-mounted robotic arm system using vision and force sensor	83
Calendar	95

### Special Issue: Intelligent Autonomous Systems (IAS-5)

Guest Editors: M. Wada, T. Sato, Y. Kakazu

Preface	97
<i>I. Mizuuchi, M. Inaba and H. Inoue</i> Adaptive pick-and-place behaviors in a whole-body humanoid robot with an autonomous layer based on parallel sensor-motor modules	99
<i>M. Kohno, M. Matsunaga and Y. Anzai</i> An adaptive sensor network system for complex environments	115

<i>T. Oka, J. Tashiro and K. Takase</i> Object-oriented BeNet programming for data-focused bottom-up design of autonomous agents	127
<i>T. Mori and T. Sato</i> Robotic Room: Its concept and realization	141
<i>J. Hakura, K. Miwa, H. Yokoi and Y. Kakazu</i> A metamorphic internal image of autonomous agents: Emergence of behavior	149
<i>A. Ude</i> Filtering in a unit quaternion space for model-based object tracking	163
<i>S. Fürst and E.-D. Dickmanns</i> A vision based navigation system for autonomous aircraft	173
<i>O. Amidi, T. Kanade and K. Fujita</i> A visual odometer for autonomous helicopter flight	185
<i>A. Yamaguchi, H. Watanabe, S. Mikami and M. Wada</i> Characterization of biological internal dynamics by the synchronization of coupled chaotic system	195
<i>C. Melhuish, O. Holland and S. Hoddell</i> Convoing: using chorusing to form travelling groups of minimal agents	207
<i>H. Yokoi, W. Yu and J. Hakura</i> Morpho-functional machine: design of an amoebae model based on the vibrating potential method	217
<i>I. Moon, J. Miura and Y. Shirai</i> On-line viewpoint and motion planning for efficient visual navigation under uncertainty	237
<i>W.F.W. Haak, F.C.A. Groen and E. Holweg</i> Automated model verification of the International Space Station for path planning	249
Calendar	259
<i>Y. Zhang, W.A. Gruver and F. Gao</i> Dynamic simplification of three degree of freedom manipulators with closed chains	261
<i>J. Ota and T. Arai</i> Transfer control of a large object by a group of mobile robots	271
<i>A. Mahajan and F. Figueroa</i> An automatic self-installation and calibration method for a 3D position sensing system using ultrasonics	281
<i>M. Mehrandezh, M.N. Sela, R.G. Fenton and B. Benhabib</i> Robotic interception of moving objects using ideal proportional navigation guidance technique	295
Calendar	311
Author Index to Volume 28	313
Subject Index to Volume 28	315
Contents Volume 28	317

